Dear Fisher:—

Here are Lombard's provisional figures. In the second table we have only 700 cases, having lost 58 of which 69-27 = 42 are in the group of Pipe, Cigar & Tob. smokers.

The table at the top shows pretty clearly what I expected, viz., that there is a considerable difference in age at death from lung cancer between Non-smokers & Cigar & Pipe smokers and cigarette smokers; but it does not show any difference between heavy cigarette smokers and moderate or light ones. This latter is a bit anomalous—but so are a great many of our data. While the first two lines with 240-9 deaths are well established statistically, the last two are not, though I believe they are significantly different from the first two.

The second table that has inconsistent first lines, I have suggested to Lombard that if a fellow is to have smoked upwards of 20,000 packs of cigarettes he may have had to live a long time. They have tried for years to get Lombard who is a very good though non-mathematical statistician to separate years smoked from total cancer started, but he has not seen how to do it with the meagre material he has. He is a perfectionist, he knows his statistical data, he has been at that same job over 30 years and everybody wishes he would finish more of his data.
He much prefers partial association of Yale to partial correlation of Pearson but with a small excess of material supporting for partial association rapidly runs one down into very small samples which are statistically unstable. There are ways of getting around this and he knows what they are but he does not like to use them. I wish other public health and medical statisticians who don't know either statistical methods or data as well as he would publish less just as I wish he would publish more.

So far as Massachusetts lung cancer death rates I should think the evidence we have is that the average age at death from lung cancer is not independent of amount or type of smoking.

The great enigma is: What can it be about cigarettes as contrasted with cigars or pipes or what can it be about those who smoke cigarettes rather than cigars or pipes, or a bit of both, which makes all these persistent statistical differences? Those are the scientific questions and thus far they seem to have no satisfactory answers. The industry has thought that in giving consumers cigarettes they were providing a milder, more enjoyable and less harmful nicotine.

Sincerely yours,

Ernie B. Wilen